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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,202	12/31/2003	Everardo D. Ruiz	P18165	9189

28062 7590 02/09/2007  
BUCKLEY, MASCHOFF, TALWALKAR LLC  
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NEW CANAAN, CT 06840

EXAMINER
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TRAN, DZUNG D

ART UNIT	PAPER NUMBER
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2613

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/09/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

5/

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/750,202	RUIZ, EVERARDO D.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Dzung D. Tran	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 November 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 and 23-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 and 23-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Specification***

1. Claim 23 is objected to because of the following informalities:

There is a typo-error in line 2 of claim 23, "liquid cryastal display device" should be "liquid crystal display device".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 20 and 21 rejected under 35 U.S.C. 102(b) as being anticipated by Johnson et al. U.S. Patent no. 5,889,602.

Regarding claim 20, Johnson discloses in Figure 2, an apparatus, comprising:

a first portion 14, the first portion housing:

a processing device (i.e., a keyboard section 14 (or transmitting housing)

contains the computer keyboard, interface circuitry, memory and processor ; see Col.

2, lines 2-8);

a second portion 16, the second portion housing:

display section 16 (or receive housing), see Col. 2, line 5;

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wherein an optical link 20 is to provide data from the processing device to the display device.

Regarding claim 21, Johnson discloses in Figure 2, wherein the first portion 14, and the second portion 16 are movably coupled.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4, 6-7, 9-16, and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. U.S. Patent no. 5,889,602 in view of Young et al. U.S. Patent no. 5,760,941.

Regarding claims 1, 10, 15 and 24, Johnson discloses an apparatus, comprising:  
a keyboard section 14 (or transmitting housing) contains the computer keyboard, interface circuitry, memory and processor (Col. 2, lines 2-8);  
display section 16 (or receive housing), see Col. 2, line 5;  
an optical hinge 20 coupled between a keyboard section 14 (or transmitting housing) coupled to encoder 76 (Figure 9) and the display section 16 (or receive housing).

Johnson does not specifically disclose a keyboard section 14 (or transmitting housing) contains a multi-level symbol encoder and display section 16 (or receive housing) contains a multi-level symbol decoder.

Young, from the same field of endeavor, discloses:

a multi-level symbol encoder 100 to receive display data and to generate multi-level symbols;

an optical link 82 coupled to the symbol encoder 100; and

a multi-level symbol decoder 130 coupled to the optical link 82 to receive the symbols and to re-create the display data.

At the time of the invention was made, it would have been obvious to an artisan to include the multi-level symbol encoder and multi-level symbol decoder taught by Young in the apparatus of Johnson. One of ordinary skill in the art would have been motivated to do that in order to monitor and read the image of the data symbol.

Regarding claims 2 and 11, the combination of Johnson and Young discloses wherein the symbol encoder and the symbol decoder as associated with at least one of: (i) multi-level amplitude symbols, (ii) multi-level phase symbols, and (iii) multi-level pulse width symbols (col. 25, lines 40-52 of Young).

Regarding claim 3, the combination of Johnson and Young discloses wherein the optical link includes: a light source (light source 24, col. 2, line 14 of Johnson);

a light source 24 coupled to the encoder 76 (Figure 9 of Johnson); and

an optical receiver 34 coupled to the optical waveguide 27.

Regarding claim 4, Johnson discloses wherein the light source is a laser diode (col. 4, lines 15-16 of Johnson) and the optical receiver 34 is a positive, intrinsic, negative diode. Even-through Johnson does not specifically disclose the optical medium is a fiber optic cable. However, it is well known in the art that an optical signal must transmit over the optical medium such that fiber optic or optical wireless.

Regarding claims 6, 12 and 13, Young discloses wherein the symbol encoder receives the display data from at least one of: (i) a processor, (ii) a chipset, (iii) a low voltage differential signaling interface, (iv) a graphics array interface, and (v) a digital video out interface (col. 10, lines 15-27).

Regarding claims 7, 14, 16, Johnson discloses the apparatus comprising a display device 16.

Regarding claims 9 and 25-27, Johnson discloses the symbol encoder 76 is housed in a first portion of a mobile computer (see figures 2 and 9), the symbol decoder is housed in a second portion of the mobile computer, and the first and second portions are movably coupled where the interface is associated with a universal bus (see Fig. 2).

6. Claims 5, 8 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. U.S. Patent no. 5,889,602 in view of Young et al. U.S. Patent no. 5,760,941 and further in view of Tani et al. U.S. Patent no. 5,793,031.

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Regarding claims 8 and 23, the combination of Johnson and Young does not specifically disclose the display device comprises one of: (i) a liquid-crystal display device, (ii) a light-emitting diode display device,

(iii) a gas-plasma display device, (iv) a cathode ray tube display device, (v) a field emission device, (vi) a flat panel device, and/or (vii) a passive transmissive device.

Tani discloses wherein the display device comprises one of: (i) a liquid-crystal display device, (ii) a light-emitting diode display device, (iii) a gas-plasma display device, (iv) a cathode ray tube display device, (v) a field emission device, (vi) a flat panel device, and/or (vii) a passive transmissive device (col. 7, lines 43-47).

At the time of the invention was made, it would have been obvious to an artisan to include the LCD display device taught by Tani in the combination of Johnson and Young. One of ordinary skill in the art would have been motivated to do that in order to enhance the monitoring and reading the image of the data symbol.

Regarding claim 5, Tani discloses an amplifier (Fig. 3, element 8) coupled between the optical receiver and the symbol decoder.

7. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. U.S. Patent no. 5,760,941 in view of Tani et al. U.S. Patent no. 5,793,031.

Regarding claims 20-21, Young discloses:

a multi-level symbol encoder 100 to receive display data and to generate multi-level symbols;

an optical link 82 coupled to the symbol encoder 100; and  
a multi-level symbol decoder 130 coupled to the optical link 82 to receive the symbols and to re-create the display data.

Young does not specifically disclose the apparatus comprising a display device to receive the display data from the symbol decoder. Tani, from the same field of endeavor, discloses in Figure 1, an apparatus, comprising: a first portion, the first portion housing:

a keyboard, a processor (e.g., computer 32), and a multi-level symbol encoder 31 to receive display data generated by the processor and to generate multi-level symbols; and

a second portion, the second portion housing: a multi-level symbol decoder to receive the symbols and to re-create the display data, and a display device 20 to receive the re-created display data  
and a symbol reading device comprising a display device 20 to receive the display data from the symbol decoder (col. 7, lines 43-47) wherein the first portion and second portion are movably coupled (Figure 1) and wherein an optical link (i.e., the link from light source 41 to signal processing 5 and LCD 20) is to provide data from the processing device to the display device.

At the time of the invention was made, it would have been obvious to an artisan to include the display device 20 taught by Tani in the apparatus of Young. One of ordinary skill in the art would have been motivated to do that in order to monitor or read the image of the data symbol.



***Response to Arguments***

8. Applicant's arguments with respect to claims 1-21 and 22-27 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung Tran whose telephone number is (571) 272-3025.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Jason Chan, can be reached on (571) 272-3022.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

  
DZUNG TRAN  
PRIMARY PATENT EXAMINER

Dzung Tran

01/29/2007